VOLUME 39 1987

SUBJECT INDEX

Acquisition, 489
  conditioned taste aversion
  diabetes insipidus
  extinction
  vasopressin-deficiency
ACTH 4–10, 83
  attended stimuli
  auditory evoked potentials
  blood pressure
  heart rate
  human studies
  inattended stimuli
Activity rhythms, 169
  circadian rhythm
  feeding
  light/dark cycles
  maternal isolation
Acute exercise, 413
  body weight
  food intake
  plasma free fatty acid levels
  swimming
Administration/observation intervals, 665
  estradiol
  rats, females
  sexual behavior
Adrenal hormonal indices, 117
  behavioral arousal
  corticosterone
  epinephrine
  norepinephrine
  stress
Adrenal medulla, 733
  blood pressure
  epinephrine
  heart
  hypoglycemia
  ornithine decarboxylase
  rats, hypertensive
  salt sensitivity
  strain differences
  sympathetic nervous system
Adrenalectomy
  cholecystokinin octapeptide, 217
  lordosis behavior, 217
  marmosets, 495
  ovariectomy, 217, 495
  proceptivity, 495
  receptivity, 495
  sexual attractiveness, 495
α_2-Adrenoceptor antagonists, 535
  α_2-adrenoceptors
  muricidal behavior
  noradrenaline
  olfactory bulbectomy
  turnover rate
α_2-Adrenoceptors, 535
  α_2-adrenoceptor antagonists
  muricidal behavior
  noradrenaline
  olfactory bulbectomy
  turnover rate
Age differences
  human studies, 639
  longitudinal changes, 639
  metallothionein serum levels, 277
  stress, acute, 277
  stress, chronic, 277
  sweet preference, 639
Age effects, 779
  behavior differences
  body weight
  sex differences
Aggression
  all-male/mixed-sex colony comparisons, 429
  avoidance, 73
  castration, 225, 693
  defensiveness, 693
  endocrinology, 429
  ethanol, 45
  flank gland secretions, 73
  hamsters, 73, 225
  hyperadrenalism, 429
  inbred mice, 45
  lesions, medial hypothalamus, 693
  medial hypothalamus, 693
  odor stimulus, 73
  ovariectomy, 225
  progesterone, 225
  rats, males, 429, 693
  reproductive physiology, 429
  social behavior, 45
  social stress, 429
  strain differences, 45
  testosterone, 693
Aggressive behavior
  castration, 555
  intermale social aggression, 555
  medial hypothalamus, 555
  neurotransmitter amino acids, 453
  selective breeding, 453
  testosterone propionate, 555
Aggressive confrontation, single, 599
  aggressive confrontation, repeated
  analgesia
  defense behavior
  nociception
  strain differences
  tolerance
Aggressive confrontation, repeated, 599
  aggressive confrontation, single
  analgesia
  defense behavior
  nociception
  strain differences
  tolerance
All-male/mixed-sex colony comparisons, 429
  aggression
  endocrinology
  hyperadrenalism
  rats, males
  reproductive physiology
  social stress
Alpha-interferon, 593
  cyclosporine
  morphine withdrawal
  operant behavior
  thermoregulation
Alternation, forced, 153
  law of effect
  licking control
  motor learning
  rhythmic movements
D-Amino acids, 619
  L-amino acids
  conditioned taste aversion
  relation to molecular properties
  taste effectiveness
L-Amino acids, 619
  D-amino acids
  conditioned taste aversion
  relation to molecular properties
  taste effectiveness
Amnesia, 783
  hippocampus
  ischemia
  memory, reference
  memory, working
d-Amphetamine, 77
  handling
  intracranial self-stimulation
  lever-pressing
  locomotor activity
  posterior hypothalamus
  rate of acquisition
Analgesia
  aggressive confrontation, repeated, 599
  aggressive confrontation, single, 599
  aversive conditioning, 135
  caloric factor, 235
  cold-water swim, 727
  defense behavior, 599
  8-hydroxy-2-(di-n-propyl-amino)tetralin, 95
  lesions, paraventricular nucleus, 727
  5-methoxy-N,N-dimethyl-tryptamine, 95
  nociception, 599
  noradrenaline depletion, 95
  opioid system, 135
  paraventricular nucleus, 727
  quantitative analysis, 235
  recruitment time, 135
  response temperature, 235
  strain differences, 599
  tail flick test, 235
  tolerance, 599
Androgens, nonaromatizable, 147
  castration
  estrogen receptors
  mice, males
  reproduction
  ultrasonic vocalizations
Anti-lymphocyte serum, 531
  conditioned taste aversion
  drug interactions
  lithium chloride
  unconditioned stimulus
Apparatus
  actimeter, 477
  chemical calibration system, 657
  8-arm radial maze, 783
  gastric balloon, 399
  gastric cannula, 417
  open field, 435

radial arm maze, 435
radial maze, 409
Skinner box, 187
stabilimeter, 435
testing chamber, 67
two-box apparatus, 103
Appetite, 753
central administration
food intake
motilin
Appetite regulation, 247
aspartame
eating
human studies, males
neurobehavioral effects
phenylalanine
Area postrema, 681
copper sulfate
drug interactions
emesis
inhibitory action
nicotine
Aromatase inhibitor, 141
castration
hamsters, male
olfactory behavior
testosterone
Artificial cerebrospinal fluid, 465
cows
drinking
Na sensors
sodium appetite
Aspartame, 247
appetite regulation
eating
human studies, males
neurobehavioral effects
phenylalanine
Attended stimuli, 83
ACTH 4–10
auditory evoked potentials
blood pressure
heart rate
human study
inattended stimuli
Attention, 653
dorsal noradrenergic bundle
6-hydroxydopamine
lesions, dorsal noradrenergic bundle
lesions, 6-hydroxydopamine
reaction time
Auditory elicitation, 483
event-related
evoked potential
P300
Auditory evoked potentials, 83
ACTH 4–10
attended stimuli
blood pressure
heart rate
human studies
inattended stimuli
Auditory stimulus, 403
conditioned stimulus
fear-potentiated startle
lesions, amygdala
lesions, bilateral electrolytic
Aversive conditioning, 135
analgesia
opioid system
recruitment time
Avoidance, 73
aggression
flank gland secretions
hamsters
odor stimulus

Bandaging, 127
catalepsy
grasping
haloperidol
labyrinthectomy
sensory controls
Basal forebrain, 381
hemicholinium
learning and memory
maze learning
neuropathology
nucleus basalis magnocellularis
Behavior differences, 779
age effects
body weight
sex differences
Behavioral arousal, 117
adrenal hormonal indices
corticosterone
epinephrine
norepinephrine
stress
Behavioral correlates
hippocampus, 513
learning, 435
type 2 theta, 513
vitamin D deficiency, 435
Behavioral differences, 409
radial maze
sex differences
Behavioral effects
early weaning, 471
offspring, males, 477
oral administration, 477
play fighting, 471
pregnancy, 477
social isolation, 471
tyrosine, 477
Behavioral effects, offspring, 187
environmental enrichment
environmental impoverishment
maternal environmental manipulation
pre-pregnancy environmental manipulation
Behavioral estrus, 421
hamsters, females
inhibition, mating-induced
long-term effects
pseudopregnancy
receptivity
Behavioral responses, 1
dietary self-selection
eating
hamsters
protein intake
Biofeedback, 673
blood pressure
continuous monitoring
recent improvements
UNO blood pressure monitor/conditioner
Biologic clock, 183
chronic cannulation
feeding behavior
growth hormone secretion
Blood pressure
ACTH 4–10, 83
adrenal medulla, 733
attended stimuli, 83
auditory stimuli, 83
biofeedback, 673
continuous monitoring, 673
epinephrine, 733
heart, 733
heart rate, 83
human studies, 83
hypoglycemia, 733
inattended stimuli, 83
ornithine decarboxylase, 733
rats, hypertensive, 733
recent improvements, 673
salt sensitivity, 733
strain differences, 733
sympathetic nervous system, 733
UNO blood pressure monitor/conditioner, 673
Body temperature
copulation, 367
5-hydroxytryptamine receptors, 327
hypothalamus, 367
maturation, 327
medial preoptic area temperature, 367
pirenperone, 327
sexual behavior, male rats, 367
temperature preference, 327
thermoregulation, 327, 367
Body weight
acute exercise, 413
age effects, 779
behavior differences, 779
brown adipose tissue, 361, 721
carcass composition, 361, 721
chronic administration, 441
dehydroepiandrosterone, 687
eating, 687
ethanol, 241
feminization, 241
food intake, 361, 399, 413, 441
gastric balloon, 399
hyperphagia, 687
in utero, 241
lesions, medial hypothalamus, 687
lipoprotein lipase, 721
long-term effects, 361
malnutrition, postnatal, 721
malnutrition, prenatal, 721
medial hypothalamus, 687
nicotine, 441
nonshivering thermogenesis, 361
norepinephrine turnover, 361
obesity, 399, 687
ovariectomy, 361
plasma free fatty acid levels, 413
protein deficiency, 721
rats, females, 441
saccharin preference, 241
sex differences, 241, 779
short-term effects, 361
swimming, 413
testosterone propionate, 241
water intake, 241, 441
withdrawal effects, 441
Bombesin, 191
cholecystokinin
domestic fowls
feeding activity
gastrointestinal motility
satiety

Brain
amygdala, 403
anterior colliculus, 453
area postrema, 315, 681
basal forebrain, 381
central amygdaloid nucleus, 715
cerebellum, 579
cerebral cortex, 653
dorsal noradrenergic bundle, 653
dorsomedial nucleus, 341
fastigial nucleus, 453
forebrain, 535
frontal cortex, 297
hippocampus, 513, 643, 783
hypothalamus, 33, 341, 367
medial hypothalamus, 555, 687, 693
medial preoptic area, 367
mesencephalon, 333
midbrain reticular formation, 453
nucleus basalis magnocellularis, 381
olfactory bulb, 535
paraventricular nucleus, 721
periaqueductal gray, 333
pineal gland, 231
pons, 453
posterior colliculus, 453
posterior hypothalamus-ventral tegmental area, 77
preoptic area, 767
suprachiasmatic nucleus, 321
trigeminal neurons, 395
ventral tegmentum, 453
ventromedial hypothalamus, 211, 315, 707
ventromedial nucleus of the hypothalamus, 341, 767
vermis, 579
Brown adipose tissue
body weight, 361, 721
carcass composition, 361, 721
exercise, 377
food intake, 361
heat production, 377
lipoprotein lipase, 721
long-term effects, 361
malnutrition, postnatal, 721
malnutrition, prenatal, 721
nonshivering thermogenesis, 361
norepinephrine turnover, 361
ovariectomy, 361
protein deficiency, 721
rats, trained, 377
rats, untrained, 377
running, 377
short-term effects, 361
thermogenesis, non-shivering, 377

Caffeine, 757
conditioned taste avoidance
cyclamate
flavor profiling
saccharin
taste potentiation
Calcium deficiency, 291
dietary self-selection
lactation
pregnancy
Caloric factor, 235
analgesia
quantitative analysis
response temperature
tail flick test
Caloric intake, 285
diet, corn oil
diet, lard
diet, vegetable oil
dietary preference
preference-aversion behavior
taste preference
Caloric regulation, 351
eating
feeding costs and benefits
food choice
patchy environment
profitability
Capsaicin, 63
human studies
oral chemical irritation
piperine
sequential preventation
trigeminal receptors
Carcass composition
body weight, 361, 721
brown adipose tissue, 361, 721
food intake, 361
lipoprotein lipase, 721
long-term effects, 361
malnutrition, postnatal, 721
malnutrition, prenatal, 721
nonshivering thermogenesis, 361
norepinephrine turnover, 361
ovariectomy, 361
protein deficiency, 721
short-term effects, 361
Cardiac conditioning, 657
chemical calibration system
chemosensory perception
computer control
morpholine
salmon
Castration
aggression, 225, 693
aggressive behavior, 555
androgens, nonaromatizable, 147
aromatase inhibitor, 141
defensiveness, 693
estrogen receptors, 147
food intake, nocturnal, 669
gonadal hormones, 669
hamsters, 225
hamsters, male, 141
hormonal influences, 677
intermale social aggression, 555
lesions, medial hypothalamus, 693
lesions, ventromedial nucleus, 341
lordosis behavior, 341
medial hypothalamus, 555, 693
mice, males, 147
mounting, 625
naloxone, 669
odor, urine, 341
olfactory behavior, 141
olfactory system, 341
orchidectomy, 341
ovariectomy, 225, 669, 677
progesterone, 225
rats, male, 341, 625, 693
reproduction, 147
scent marking, 677
sex differences, 677
sexual behavior, 625
sexual differentiation, 625
shrews, 677
testicular hormones, 625
testosterone, 141, 693
testosterone propionate, 555
ultrasonic vocalizations, 147
Catalepsy, 127
bandaging
grasping
haloperidol
labyrinthectomy
sensory controls
Cats, 551
phentolamine
REM sleep drprivation
REM sleep rebound
Central administration, 753
appetite
food intake
motilin
Chain chewing, 775
frustration
pits
plasma cortisol levels
schedule-induced behavior
stereotypy, oral
Chemical calibration system, 657
cardiac conditioning
chemosensory perception
computer control
morpholine
salmon
Chemosensory perception, 657
cardiac conditioning
chemical calibration system
computer control
morpholine
salmon
Chickens, 587
food intake
glucagon
liver metabolism
vagotomy
Cholecystokinin
adrenalectomy, 217
bombesin, 191
domestic fowls, 191
feeding activity, 191
free-feeding, 111
gastrointestinal motility, 191
intermeal interval, 111
lordosis behavior, 217
meal pattern, 111
meal size, 111
ovariectomy, 217
satiety, 191
Chronic administration
body weight, 441
circadian rhythm, behavioral, 699
circadian rhythm, neuroendocrine, 699
cross-tolerance, 161
food intake, 441
hot plate test, 161
intrathecal infusion, 161
methamphetamine, 699
morphine analgesic tolerance, 161
morphine sulfate, 161
nicotine, 441
rats, females, 441
tail flick test, 161
water intake, 441
withdrawal effects, 441, 699
Chronic cannulation, 183

biologic clock
feeding behavior
growth hormone secretion
Chronic esophagostomy, 417
double fistula
gastric cannula
preparation and maintenance
Chronic single neuron recording, 649
electrode construction
electrode implantation
fine wire electrode
freely moving animals
Circadian rhythms
activity rhythms, 169
corticosterone levels, 211
desynchrony, 203
digestive tract contents, 629
feeding, 169
food intake, 629
human studies, 203
intermeal interval, 203
lesions, ventromedial hypothalamus, 211
light/dark cycles, 169
locomotor activity, 321
maternal isolation, 169
meal patterns, 203
rats, anophthalmic, 321
restricted feeding, 211
sleep-wakefulness, 321
sleep-wake periods, 203
time isolation, 203
ventromedial hypothalamus, 211
Circadian rhythm, behavioral, 699
chronic administration
circadian rhythm, neuroendocrine
methamphetamine
withdrawal
Circadian rhythm, neuroendocrine, 699
chronic administration
circadian rhythm, behavioral
methamphetamine
withdrawal
Classical conditioning, 89
cortisol
guinea pigs
histamine release
odor stimulus
stress
Cockroaches, headless, 445
drug comparisons
learning
leg-lifting behavior
morphine
naloxone
shock avoidance
Cold-water swim, 727
analgesia
lesions, paraventricular nucleus
paraventricular nucleus
Collateral activities
differential reinforcement of low rate of responding, 255
general activity, 255
open-field, 255
reinforced behavior, 263
sex differences, 263, 255
Computer control, 657
cardiac conditioning
chemical calibration system
chemosensory perception
morpholine
salmon
Conditioned fear paradigm, 33
5-hydroxyindoleacetic acid concentrations
5-hydroxytryptamine concentrations
hypothalamus
plasma corticosterone levels
plasma prolactin levels
plasma renin activity
stress, acute
Conditioned stimulus, 403
auditory stimulus
fear-potentiated startle
lesions, amygdala
lesions, bilateral electrolytic
Conditioned taste aversion
acquisition, 489
D-amino acids, 619
L-amino acids, 619
anti-lymphocyte serum, 531
caffeine, 757
cyclamate, 757
diabetes insipidus, 489
domestic fowl, 27
drug interactions, 531
extinction, 27, 489
flavor profiling, 757
gonadal steroids, 27
lithium chloride, 531
relation to molecular properties, 619
saccharin, 757
taste effectiveness, 619
taste potentiation, 757
unconditioned stimulus, 531
vasopressin-deficiency, 489
Continuous monitoring, 673
biofeedback
blood pressure
recent improvements
UNO blood pressure monitor/conditioner
Copper sulfate, 681
area postrema
drug interactions
emesis
inhibitory action
nicotine
Copulation, 367
body temperature
hypothalamus
medial preoptic area temperature
sexual behavior, male rats
thermoregulation
Copulatory behavior, 371
copulatory plug
ejaculatory immobility
intromissions
sperm transport
Copulatory plug, 371
copulatory behavior
ejaculatory immobility
intromissions
sperm transport
Cordycepin, 767
defeminization
gonadotropin secretion
poly-A$^+$ MRNA
sexual behavior
Corticosterone
adrenal hormonal indices, 117
behavioral arousal, 117
circadian rhythms, 211
epinephrine, 117
lesions, ventromedial hypothalamus, 211
norepinephrine, 117
restricted feeding, 211
stress, 117
ventromedial hypothalamus, 211
Corticosteronemia, 707
food intake
glycemia
insulinemia
lesions, electrolytic bilateral
lesions, ventromedial hypothalamus
liver glycogen
time course of changes
ventromedial hypothalamus
Cortisol, 89
classical conditioning
guinea pigs
histamine release
odor stimulus
stress
Courtship behavior, 231
hibernation
pinealectomy
seasonal temperature information
snakes, red-sided garter
Cows
artificial cerebrospinal fluid, 465
drinking, 459, 465
hypertonicity, 459
Na sensors, 459, 465
osmoreceptors, 459
sodium appetite, 465
Cross-tolerance, 161
chronic administration
hot plate test
intrathecal infusion
morphine analgesic tolerance
morphine sulfate
tail flick test
Cyclamate, 757
caffeine
conditioned taste avoidance
flavor profiling
saccharin
taste potentiation
Cyclosporine, 593
alpha-interferon
morphine withdrawal
operant behavior
thermoregulation

Defeminization, 767
cordycepin
gonadotropin secretion
poly-A$^+$ mRNA
sexual behavior
Defense behavior, 599
aggressive confrontation, repeated
aggressive confrontation, single
analgesia
nociception
strain differences
tolerance
Defensiveness, 693
aggression
castration
lesions, medial hypothalamus
medial hypothalamus
rats, males

testosterone
Dehydroepiandrosterone, 687
body weight
eating
hyperphagia
lesions, medial hypothalamus
medial hypothalamus
obesity
2-Deoxy-D-glucose, 745
drinking
inhibition
kaolin
malaise
pica
Desynchrony, 203
circadian rhythms
human study
intermeal interval
meal patterns
sleep-wake periods
time isolation
Detention, 103
exploratory behavior
grooming
illumination
step-through latency
two-box apparatus
Diabetes insipidus
acquisition, 489
conditioned taste aversion, 489
drinking, 53
extinction, 489
renin-angiotensin system, 53
sodium appetite, 53
strain differences, 53
vasopressin-deficiency, 489
Diet, corn oil, 285
caloric intake
diet, lard
diet, vegetable oil
dietary preference
preference-aversion behavior
taste preference
Diet, lard, 285
caloric intake
diet, corn oil
diet, vegetable oil
dietary preference
preference-aversion behavior
taste preference
Diet, vegetable oil, 285
caloric intake
diet, corn oil
diet, lard
dietary preference
preference-aversion behavior
taste preference
Dietary preference, 285
caloric intake
diet, corn oil
diet, lard
diet, vegetable oil
preference-aversion behavior
taste preference
Dietary self-selection
behavioral responses, 1
calcium deficiency, 291
eating, 1
hamsters, 1
lactation, 291
pregnancy, 291
protein intake, 1
Differential reinforcement of low rate of responding, 255
collateral activities
general activity
open-field
sex differences
Digestive tract contents, 629
circadian rhythm
food intake
Domestic fowls
bombesin, 191
cholecystokinin, 191
conditioned taste aversion, 27
extinction, 27
feeding activity, 191
gastrointestinal motility, 191
gonadal steroids, 27
satiety, 191
Dorsal noradrenergic bundle, 653
attention
6-hydroxydopamine
lesions, dorsal noradrenergic bundle
lesions, 6-hydroxydopamine
reaction time
Double fistula, 417
chronic esophagostomy
gastric cannula
preparation and maintenance
Double sampling, 303
gastric emptying
within-trial repeated measurement
Drinking
artificial cerebrospinal fluid, 465
cows, 459, 465
2-deoxy-D-glucose, 745
diabetes insipidus, 53
drinking motivation, 571
hypertonic solutions, 541
hypertonicity, 459
ICV administration, 541
inhibition, 745
kaolin, 745
malaise, 745
minipigs, 541
Na sensors, 459, 465
osmoreceptors, 459, 541
pica, 745
quinine, 571
rats, diabetics, 571
renin-angiotensin system, 53
sodium appetite, 53, 465
sodium receptors, 541
strain differences, 53
sucrose octa-acetate, 571
taste aversion, 571
vasopressin release, 541
Drinking motivation, 571
drinking
quinine
rats, diabetics
sucrose octa-acetate
taste aversion
Drug
alpha-interferon, 593
d-amphetamine, 77
antazoline, 681
anti-lymphocyte serum, 531
aspartame, 247
atropine, 681
caffeine, 757
capsaicin, 63
N-2-chloroethyl-N-ethyl-2-bromobenzylamine, 95
chloropyramine, 681
chlorpromazine, 681
copper sulfate, 681
corynanthine, 535
cyclosporine, 593
dehydroepiandrosterone, 687
2-deoxy-D-glucose, 311, 745
desmethylimipramine, 653
diazepam, 127
5,6-dihydroxytryptamine, 681
ethanol, 45, 241
gold thioglucose, 315
haloperidol, 127, 681
hemicholinium-3, 381, 681
hexamethonium, 681
hydrocortisone hemisuccinate, 495
8-hydroxy-2-(di-n-propyl-amino)tetralin, 95
6-hydroxydopamine, 95, 653, 681
ibotenic acid, 715
idazoxan, 535
indomethacin, 763
lithium chloride, 531, 547
mannitol, 541
mecamylamine, 681
methamphetamine, 699
5-methoxy-N,N-dimethyl-tryptamine, 95
methysergide, 767, 681
morphine, 127, 445, 547
morphine sulfate, 161
morpholine, 657
motilin, 753
naloxone, 135, 445, 593, 669
naltrexone, 501, 547
nicotine, 441, 681
pancreatic glucagon, 507
phenoxybenzamine, 681
phentolamine, 551, 681
phenylalanine, 247
piperine, 63
pirenperone, 321
practolol, 681
propranolol, 681
quinine, 571, 745
rauwolscine, 535
reserpine, 681
scopolamine, 681
sodium salicylate, 763
sucrose octa-acetate, 571
tolazoline, 681
tyrosine, 477
yohimbine, 535, 681
Drug comparisons, 445
cockroaches, headless
learning
leg-lifting behavior
morphine
naloxone
shock avoidance
Drug interactions
anti-lymphocyte serum, 531
area postrema, 681
conditioned taste aversion, 531
copper sulfate, 681
emesis, 681
inhibitory action, 681
lithium chloride, 531
nicotine, 681
unconditioned stimulus, 531

Duration of male exposure, 309
estradiol binding site
serum estrogen levels
sexual development
voles, females

Early weaning, 471
behavioral effects
play fighting
social isolation
Eating
appetite regulation, 247
aspartame, 247
behavioral responses, 1
body weight, 687
caloric regulation, 351
dehydroepiandrosterone, 687
dietary self-selection, 1
feeding costs and benefits, 351
food choice, 351
food deprivation, 507
hamsters, 1
hepatic glucose production, 507
human studies, males, 247
hyperphagia, 687
lesions, medial hypothalamus, 687
medial hypothalamus, 687
neurobehavioral effects, 247
nocturnal feeding, 507
obesity, 687
pancreatic glucagon, 507
patchy environment, 351
phenylalanine, 247
profitability, 351
protein intake, 1
satiety, 507
Ejaculatory immobility, 371
copulatory behavior
copulatory plug
intromissions
sperm transport
Electrical stimulation, 395
pain-modulatory system
sleep-induced changes
sleep-regulatory system
tooth pulp, cats
trigeminal neurons
Electrode construction, 649
chronic single neuron recording
electrode implantation
fine wire electrode
freely moving animals
Electrode implantation, 649
chronic single neuron recording
electrode construction
fine wire electrode
freely moving animals
Emesis, 681
area postrema
copper sulfate
drug interactions
inhibitory action
nicotine
Endocrine responses, 11
epinephrine
fighting behavior
glucocorticoid
guinea pigs
norepinephrine
short-term responses
social status
stress
testosterone
Endocrinology, 429
aggression
all-male/mixed sex colony comparisons
hyperadrenalism
rats, males
reproductive physiology
social stress
Endogenous opioid peptides, 547
lithium chloride
naltrexone
taste preference
toxicity
Environment, novel/familiar
comparisonsm 21
housing, group/individual comparisons, 21
monkeys, squirrel
mother-infant separation
pituitary-adrenal responses
plasma cortisol levels
vocalizations
Environmental enrichment
behavioral effects, offspring, 187
environmental impoverishment, 187
foraging behavior, 281
gerbils, 281
maternal environmental manipulation, 187
pre-pregnancy environmental manipulation, 187
Environmental impoverishment, 187
behavioral effects, offspring
environmental enrichment
maternal environmental manipulation
pre-pregnancy environmental manipulation
Epinephrine
adrenal hormonal indices, 117
adrenal medulla, 733
behavioral arousal, 117
blood pressure, 733
corticosterone, 117
endocrine responses, 11
fighting behavior, 11
glucocorticoid, 11
guinea pigs, 11
heart, 733
hypoglycemia, 733
norepinephrine, 11, 117
ornithine decarboxylase, 733
rats, hypertensive, 733
salt sensitivity, 733
short-term responses, 11
social status, 11
strain differences, 733
stress, 11, 117
sympathetic nervous system, 733
testosterone, 11
Estradiol, 665
administration/observation intervals
rats, females
sexual behavior
Estradiol binding site, 309
duration of male exposure
serum estrogen levels
sexual development
voles, females
Estrogen receptors, 147
androgens, nonaromatizable
castration
mice, males
reproduction
ultrasonic vocalizations
Ethanol
aggression, 45
body weight, 241
feminization, 241
inbred mice, 45
in utero, 241
saccharin preference, 241
sex differences, 241
social behavior, 45
strain differences, 45
testosterone propionate, 241
water intake, 241
Event-related, 483
auditory elicitation
evoked potential
P300
Evoked potential, 483
auditory elicitation
event-related
P300
Exercise, 377
brown adipose tissue
heat production
rats, trained
rats, untrained
running
thermogenesis, non-shivering
Exploratory behavior, 103
detention
grooming
illumination
step-through latency
two-box apparatus
Extinction
acquisition, 489
conditioned taste aversion, 27, 489
diabetes insipidus, 489
domestic fowl, 27
gonadal steroids, 27
vasopressin-deficiency, 489

Fear, 579
learning
lesions, cerebellar vermis
neophobia
species-specific effects
taste-aversion
Fear-induced freezing, 501
learning
naltrexone
opioid-induced analgesia
pain
stress
Fear-potentiated startle, 403
auditory stimulus
conditioned stimulus
lesions, amygdala
lesions, bilateral electrolytic
Feeding, 169
activity rhythms
circadian rhythm
light/dark cycles
maternal isolation
Feeding activity, 191
bombesin
cholecystokinin
domestic fowl
gastrointestinal motility

satiety
Feeding behavior
biologic clock, 183
chronic cannulation, 183
growth hormone releasing factor$_{1-44}$, 347
growth hormone secretion, 183
insulinemia, 347
orexigenic effects, 347
regimen, 347
route of administration, 347
sheep, 347
Feeding costs and benefits, 351
caloric regulation
eating
food choice
patchy environment
profitability
Feminization, 241
body weight
ethanol
in utero
saccharin preference
sex differences
testosterone propionate
water intake
Fertility, 521
hamsters
photoperiod
sexual behavior
ultrasonic vocalizations
Fever, 763
hyperthermia, stress-induced
prostaglandin release
Fighting behavior, 11
endocrine responses
epinephrine
glucocorticoid
guinea pigs
norepinephrine
short-term responses
social status
stress
testosterone
Fine wire electrode, 649
chronic single neuron recording
electrode construction
electrode implantation
freely moving animals
Flavor profiling, 757
caffeine
conditioned taste avoidance
cyclamate
saccharin
taste potentiation
Food choice, 351
caloric regulation
eating
feeding costs and benefits
patchy environment
profitability
Food deprivation, 507
eating
hepatic glucose production
nocturnal feeding
pancreatic glucagon
satiety
Food intake
acute exercise, 413
appetite, 753
body weight, 361, 399, 413, 441
brown adipose tissue, 361
carcass composition, 361
central administration, 753
chickens, 587
chronic administration, 441
circadian rhythm, 629
corticosteronemia, 707
digestive tract contents, 629
food preferences, 739
gastric balloon, 399
glucagon, 587
glycemia, 707
human studies, 561, 739
insulinemia, 707
intermeal interval, 561
lesions, electrolytic bilateral, 707
lesions, ventromedial hypothalamus, 707
liver glycogen, 707
liver metabolism, 587
long-term effects, 361
macronutrients, 561
meal patterns, 561
mood, 561
motilin, 753
nicotine, 441
nonshivering thermogenesis, 361
norepinephrine turnover, 361
obesity, 399
ovariectomy, 361
plasma free fatty acid levels, 413
rats, females, 441
short-term effects, 361
sucrose concentration, 739
swimming, 413
taste-and-spit tests, 739
time course of changes, 707
ventromedial hypothalamus, 707
water intake, 441
withdrawal effects, 441
vagotomy, 587
Food intake, nocturnal, 669
castration
gonadal hormones
naloxone
ovariectomy
Food preferences, 739
food intake
human studies
sucrose concentration
taste-and-spit tests
Foraging behavior, 281
environmental enrichment
gerbils
Flank gland secretions, 73
aggression
avoidance
hamsters
odor stimulus
Free-feeding cholecystokinin octapeptide, 111
intermeal interval
meal pattern
meal size
Freely moving animals, 649
chronic single neuron recording
electrode construction
electrode implantation
fine wire electrode
Frustration, 775
chain chewing
pigs
plasma cortisol levels
schedule-induced behavior
stereotypy, oral
Gastric balloon, 399
body weight
food intake
obesity
Gastric cannula, 417
chronic esophagostomy
double fistula
preparation and maintenance
Gastric emptying, 303
double sampling
within-trial repeated measurement
Gastrointestinal motility, 191
bombesin
cholecystokinin
domestic fowls
feeding activity
satiety
General activity, 255
collateral activities
differential reinforcement of low rate of responding
open-field
sex differences
Gerbils, 281
environmental enrichment
foraging behavior
Glucagon, 587
chickens
food intake
liver metabolism
vagotomy
Glucocorticoid, 11
endocrine responses
epinephrine
fighting behavior
guinea pigs
norepinephrine
short-term responses
social status
stress
testosterone
Glycemia, 707
corticosteronemia
food intake
insulinemia
lesions, electrolylic bilateral
lesions, ventromedial hypothalamus
liver glycogen
time course of changes
ventromedial hypothalamus
Gonadal hormones, 669
castration
food intake, nocturnal
naloxone
ovariectomy
Gonadal steroids, 27
conditioned taste aversion
domestic fowl
extinction
Gonadectomy, 269
random ratio schedules
response acquisition
sex differences
Gonadotropin secretion, 767
cordycepin
defeminization
poly-A$^+$ mRNA
sexual behavior

Grasping, 127
  bandaging
  catalepsy
  haloperidol
  labyrinthectomy
  sensory controls
Grooming, 103
  detention
  exploratory behavior
  illumination
  step-through latency
  two-box apparatus
Growth hormone releasing factor$_{1-44}$, 347
  feeding behavior
  insulinemia
  orexigenic effects
  regimen
  route of administration
  sheep
Growth hormone secretion, 183
  biologic clock
  chronic cannulation
  feeding behavior
Growth rate, 527
  liquid diets
  nutrition
  obesity
Guinea pigs
  classical conditioning, 89
  cortisol, 89
  endocrine responses, 11
  epinephrine, 11
  fighting behavior, 11
  glucocorticoid, 11
  histamine release, 89
  norepinephrine, 11
  odor stimulus, 89
  short-term responses, 11
  social status, 11
  stress, 11, 89
  testosterone, 11

Haloperidol, 127
  bandaging
  catalepsy
  grasping
  labyrinthectomy
  sensory controls
Hamsters
  aggression, 73, 225
  avoidance, 73
  behavioral responses, 1
  castration, 225
  dietary self-selection, 1
  eating, 1
  fertility, 521
  flank gland secretions, 73
  lesions, area postrema, 315
  lesions, gold thioglucose-induced, 315
  lesions, ventromedial hypothalamus, 315
  odor stimulus, 73
  ovariectomy, 225
  photoperiod, 521
  photoperiodism, 615
  progesterone, 225
  protein intake, 1
  sexual behavior, 521
  spontaneous testicular recrudescence, 615
  ultrasonic vocalizations, 521
Hamsters, female, 421
  behavioral estrus
  inhibition, mating-induced
  long-term effects
  pseudopregnancy
  receptivity
Hamsters, male, 141
  aromatase inhibitor
  castration
  olfactory behavior
  testosterone
Handling, 77
  d-amphetamine
  intracranial self-stimulation
  lever-pressing
  locomotor activity
  posterior hypothalamus
  rate of acquisition
Heart, 733
  adrenal medulla
  blood pressure
  epinephrine
  hypoglycemia
  ornithine decarboxylase
  rats, hypertensive
  salt sensitivity
  strain differences
  sympathetic nervous system
Heart rate, 83
  ACTH 4–10
  attended stimuli
  auditory evoked potentials
  blood pressure
  human studies
  inattended stimuli
Heat production, 377
  brown adipose tissue
  exercise
  rats, trained
  rats, untrained
  running
  thermogenesis, non-shivering
Hemicholenium, 381
  basal forebrain
  learning and memory
  maze learning
  neuropathology
  nucleus basalis magnocellularis
Hepatic glucose production, 507
  eating
  food deprivation
  nocturnal feeding
  pancreatic glucagon
  satiety
Hibernation, 231
  courtship behavior
  pinealectomy
  seasonal temperature information
  snakes, red-sided garter
Hippocampus
  amnesia, 783
  behavioral correlates, 513
  ischemia, 783
  memory, reference, 783
  memory, working, 783
  type 2 theta, 513
Histamine release, 89
  classical conditioning
  cortisol
  guinea pigs
  odor stimulus
  stress
Hormone
  1,4,6-androstatriene-3,17-dione, 141
  cordycepin, 767
  corticosterone, 33, 117, 211, 707
  deoxycorticosterone pivalate, 495
  diethylstilbestrol, 147
  α-dihydrotestosterone propionate, 27
  epinephrine, 11, 117, 733
  estradiol, 665, 669
  17β-estradiol, 495
  estradiol benzoate, 67, 217, 225, 341, 767
  estradiol dipropionate, 27
  estrogen, 309
  glucocorticoid, 11
  insulin, 707, 733
  methyltrienolone, 147
  moxestrol, 767
  noradrenaline, 95, 535, 653
  norepinephrine, 11, 117, 361
  progesterone, 67, 217, 225, 341, 665, 669, 767
  prolactin, 33
  testosterone, 11, 141, 147, 625, 669, 693
  testosterone propionate, 27, 241, 555, 767
Hormonal influences, 677
  castration
  ovariectomy
  scent marking
  sex differences
  shrews
Hot plate test, 161
  chronic administration
  cross-tolerance
  intrathecal infusion
  morphine analgesic tolerance
  morphine sulfate
  tail flick test
Housing, group/individual comparisons, 21
  environment, novel/familiar comparisons
  monkeys, squirrel
  mother-infant separation
  pituitary-adrenal responses
  plasma cortisol levels
  vocalizations
Human studies
  ACTH 4–10, 83
  age differences, 639
  attended stimuli, 83
  auditory evoked potentials, 83
  blood pressure, 83
  capsaicin, 63
  circadian rhythms, 203
  desynchrony, 203
  food intake, 561, 739
  food preferences, 739
  heart rate, 83
  inattended stimuli, 83
  intermeal interval, 203, 561
  longitudinal changes, 639
  macronutrients, 561
  meal patterns, 203, 561
  mood, 561
  oral chemical irritation, 63
  piperine, 63
  sequential presentation, 63
  sleep-wake periods, 203
  sucrose concentration, 739
  sweet preference, 639

taste-and-spit tests, 739
time isolation, 203
trigeminal receptors, 63
Human studies, males, 247
appetite regulation
aspartame
eating
neurobehavioral effects
phenylalanine
8-Hydroxy-2-(di-n-propylamino)tetralin, 95
analgesia
5-methoxy-N, N-dimethyl-tryptamine
noradrenaline depletion
6-Hydroxydopamine, 653
attention
dorsal noradrenergic bundle
lesions, dorsal noradrenergic bundle
lesions, 6-hydroxydopamine
reaction time
5-Hydroxyindoleacetic acid concentrations, 33
conditioned fear paradigm
5-hydroxytryptamine concentrations
hypothalamus
plasma corticosterone levels
plasma prolactin levels
plasma renin activity
stress, acute
5-Hydroxytryptamine concentrations, 33
conditioned fear paradigm
5-hydroxyindoleacetic acid concentrations
hypothalamus
plasma corticosterone levels
plasma prolactin levels
plasma renin activity
stress, acute
5-Hydroxytryptamine receptors, 327
body temperature
maturation
pirenperone
temperature preference
thermoregulation
Hyperadrenalism, 429
aggression
all-male/mixed-sex colony comparisons
endocrinology
rats, males
reproductive physiology
social stress
Hyperphagia, 687
body weight
dehydroepiandrosterone
eating
lesions, medial hypothalamus
medial hypothalamus
obesity
Hypersynchronons bursting, 297
lesions, bilateral
lesions, frontal
lesions, unilateral
open-field activity
photically evoked after-discharge
spontaneous alternation
Hypertension, 633
maternal behavior
spontaneously hypertensive rats
Hyperthermia, stress-induced, 763
fever
prostaglandin release
Hypertonic solutions, 541
drinking
ICV administration
minipigs
osmoreceptors
sodium receptors
vasopressin release
Hypertonicity, 459
cows
drinking
Na sensors
osmoreceptors
Hypoglossal neurons, 273
macular stimulation
rabbits
vestibular system
Hypoglycemia, 733
adrenal medulla
blood pressure
epinephrine
heart
ornithine decarboxylase
rats, hypertensive
salt sensitivity
strain differences
sympathetic nervous system
Hypothalamus
body temperature, 367
conditioned fear paradigm, 33
copulation, 367
5-hydroxyindoleacetic acid concentrations, 33
5-hydroxytryptamine concentrations, 33
medial preoptic area temperature, 367
plasma corticosterone levels, 33
plasma prolactin levels, 33
plasma renin activity, 33
sexual behavior, male rats, 367
stress, acute, 33
thermoregulation, 367

ICV administration, 541
drinking
hypertonic solutions
minipigs
osmoreceptors
sodium receptors
vasopressin release
Illumination, 103
detention
exploratory behavior
grooming
step-through latency
two-box apparatus
Inattended stimuli, 83
ACTH 4–10
attended stimuli
auditory evoked potentials
blood pressure
heart rate
human studies
Inbred mice, 45
aggression
ethanol
social behavior
strain differences
Inhibition, 745
2-deoxy-D-glucose
drinking
kaolin
malaise
pica
Inhibition, mating-induced, 421
behavioral estrus
hamsters, females
long-term effects
pseudopregnancy
receptivity
Inhibitory action, 681
area postrema
copper sulfate
drug interactions
emesis
nicotine
Insulinemia
corticosteronemia, 707
feeding behavior, 347
food intake, 707
glycemia, 707
growth hormone releasing factor, 347
lesions, electrolytic bilateral, 707
lesions, ventromedial hypothalamus, 707
liver glycogen, 707
orexigenic effects, 347
regimen, 347
route of administration, 347
sheep, 347
time course of changes, 707
ventromedial hypothalamus, 707
Intermale social aggression, 555
aggressive behavior
castration
medial hypothalamus
testosterone propionate
Intermeal interval
cholecystokinin octapeptide, 111
circadian rhythms, 203
desynchrony, 203
food intake, 561
free-feeding, 111
human studies, 203, 561
macronutrients, 561
meal patterns, 111, 203, 561
meal size, 111
mood, 561
sleep-wake periods, 203
time isolation, 203
Intracranial self-stimulation, 77
d-amphetamine
handling
lever-pressing
locomotor activity
posterior hypothalamus
rate of acquisition
Intrathecal infusion, 161
chronic administration
cross-tolerance
hot plate test
morphine analgesic tolerance
morphine sulfate
tail flick test
Intromissions, 371
copulatory behavior
copulatory plug
ejaculatory immobility
sperm transport
In utero, 241
body weight
ethanol
feminization
saccharin preference

sex differences
testosterone propionate
water intake
Ischemia, 783
amnesia
hippocampus
memory, reference
memory, working

Jumping, 333
learning
periaqueductal gray
rearing
squealing
stimulation-induced behaviors
switch-off responding

Kaolin, 745
2-deoxy-D-glucose
drinking
inhibition
malaise
pica

Labyrinthectomy, 127
bandaging
catalepsy
grasping
haloperidol
sensory controls
Lactation, 291
calcium deficiency
dietary self-selection
pregnancy
Law of effect, 153
alternation, forced
licking control
motor learning
rhythmic movements
Learning
behavioral correlates, 435
cockroaches, headless, 445
drug comparisons, 445
fear, 579
fear-induced freezing, 501
jumping, 333
leg-lifting behavior, 445
lesions, cerebellar vermis, 579
lesions, hippocampus, 643
lesions, kainic acid, 643
morphine, 445
naloxone, 445
naltrexone, 501
neophobia, 579
opioid-induced analgesia, 501
pain, 501
periaqueductal gray, 333
rabbits, 643
rearing, 333
sensory associations, 643
shock avoidance, 445
species-specific effects, 579
squealing, 333
stimulation-induced behaviors, 333
stress, 501
switch-off responding, 333
taste-aversion, 579
vitamin D deficiency, 435
Learning and memory, 381
basal forebrain
hemicholinium
maze learning
neuropathology
nucleus basalis magnocellularis
Leg-lifting behavior, 445
cockroaches, headless
drug comparisons
learning
morphine
naloxone
shock avoidance
Lesions, amygdala, 403
auditory stimulus
conditioned stimulus
fear-potentiated startle
lesions, bilateral electrolytic
Lesions, area postrema, 315
hamsters
lesions, gold thioglucose-induced
lesions, ventromedial hypothalamus
Lesions, bilateral, 297
hypersynchronous bursting
lesions, frontal
lesions, unilateral
open-field activity
photically evoked after-discharge
spontaneous alternation
Lesions, bilateral electrolytic, 403
auditory stimulus
conditioned stimulus
fear-potentiated startle
lesions, amygdala
Lesions, central amygdaloid nucleus, 715
lesions, electrocoagulation
lesions, ibotenic acid
open field
passive avoidance
Lesions, cerebellar vermis, 579
fear
learning
neophobia
species-specific effects
taste-aversion
Lesions, dorsal noradrenergic bundle, 653
attention
dorsal noradrenergic bundle
6-hydroxydopamine
lesions, 6-hydroxydopamine
reaction time
Lesions, electrocoagulation, 715
lesions, central amygdaloid nucleus
lesions, ibotenic acid
open field
passive avoidance
Lesions, electrolytic bilateral, 707
corticosteronemia
food intake
glycemia
insulinemia
lesions, ventromedial hypothalamus
liver glycogen
time course of changes
ventromedial hypothalamus
Lesions, frontal, 297
hypersynchronous bursting
lesions, bilateral
lesions, unilateral
open-field activity
photically evoked after-discharge
spontaneous alternation
Lesions, gold thioglucose-induced, 315
hamsters
lesions, area postrema
lesions, ventromedial hypothalamus
Lesions, hippocampus, 643
learning
lesions, kainic acid
rabbits
sensory associations
Lesions, 6-hydroxydopamine, 653
attention
dorsal noradrenergic bundle
6-hydroxydopamine
lesions, dorsal noradrenergic bundle
reaction time
Lesions, ibotenic acid, 715
lesions, central amygdaloid nucleus
lesions, electrocoagulation
open field
passive avoidance
Lesions, kainic acid, 643
learning
lesions, hippocampus
rabbits
sensory associations
Lesions, medial hypothalamus
aggression, 693
body weight, 687
castration, 693
defensiveness, 693
dehydroepiandrosterone, 687
eating, 687
hyperphagia, 687
medial hypothalamus, 687, 693
obesity, 687
rats, males, 693
testosterone, 693
Lesions, paraventricular nucleus, 727
analgesia
cold-water swim
paraventricular nucleus
Lesions, unilateral, 297
hypersynchronous bursting
lesions, bilateral
lesions, frontal
open-field activity
photically evoked after-discharge
spontaneous alternation
Lesions, ventromedial hypothalamus
castration, 341
circadian rhythms, 211
corticosterone levels, 211
corticosteronemia, 707
food intake, 707
glycemia, 707
hamsters, 315
insulinemia, 707
lesions, area postrema, 315
lesions, electrolytic bilateral, 707
lesions, gold thioglucose-induced, 315
liver glycogen, 707
lordosis behavior, 341
odor, urine, 341
olfactory system, 341
orchidectomy, 341
rats, males, 341
restricted feeding, 211
time course of changes, 707
ventromedial hypothalamus, 211, 707
Lever-pressing, 77
d-amphetamine
handling
intracranial self-stimulation

locomotor activity
posterior hypothalamus
rate of acquisition
Licking control, 153
alternation, forced
law of effects
motor learning
rhythmic movements
Light adaptation, 607
light exposure
photoreceptor damage
retina
rod outer segment phagocytosis
time of exposure
Light/dark cycles, 169
activity rhythms
circadian rhythm
feeding
maternal isolation
Light exposure, 607
light adaptation
photoreceptor damage
retina
rod outer segment phagocytosis
time of exposure
Lipoprotein lipase, 721
body weight
brown adipose tissue
carcass composition
malnutrition, postnatal
malnutrition, prenatal
protein deficiency
Liquid diets, 527
growth rate
nutrition
obesity
Lithium chloride, 547
anti-lymphocyte serum, 547
conditioned taste aversion, 531
drug interactions, 531
endogenous opioid peptides, 547
naltrexone, 547
taste preference, 547
toxicity, 547
unconditioned stimulus, 531
Liver glycogen, 707
corticosteronemia
food intake
glycemia
insulinemia
lesions, electrolytic bilateral
lesions, ventromedial hypothalamus
time course of changes
ventromedial hypothalamus
Liver metabolism, 587
chickens
food intake
glucagon
vagotomy
Locomotor activity
d-amphetamine, 77
circadian rhythm, 321
handling, 77
intracranial self-stimulation, 77
lever-pressing, 77
posterior hypothalamus, 77
rate of acquisition, 77
rats, anophthalmic, 321
sleep-wakefulness, 321
Longitudinal changes, 639
age differences
human studies
sweet preference
Long-term effects
behavioral estrus, 421
body weight, 361
brown adipose tissue, 361
carcass composition, 361
food intake, 361
hamsters, females, 421
inhibition, mating-induced, 421
nonshivering thermogenesis, 361
norepinephrine turnover, 361
ovariectomy, 361
pseudopregnancy, 421
receptivity, 421
short-term effects, 361
Lordosis
adrenalectomy, 217
castration, 341
cholecystokinin octapeptide, 217
lesions, ventromedial nucleus, 341
odor, urine, 341
olfactory system, 341
orchidectomy, 341
ovariectomy, 217
pacing behavior, 67
rats, males, 341
sexual behavior, female, 67
Macronutrients, 561
food intake
human studies
intermeal interval
meal patterns
mood

Macular stimulation, 273
hypoglossal neurons
rabbits
vestibular system
Malaise, 745
2-deoxy-D-glucose
drinking
inhibition
kaolin
pica
Malnutrition, postnatal, 721
body weight
brown adipose tissue
carcass composition
lipoprotein lipase
malnutrition, prenatal
protein deficiency
Malnutrition, prenatal, 721
body weight
brown adipose tissue
carcass composition
lipoprotein lipase
malnutrition, postnatal
protein deficiency
Marmosets, 495
adrenalectomy
ovariectomy
proceptivity
receptivity
sexual attractiveness
Maternal behavior, 633
hypertension
spontaneously hypertensive rats
Maternal environmental manipulation, 187
behavioral effects, offspring
environmental enrichment
environmental impoverishment
pre-pregnancy environmental manipulation
Maternal isolation, 169
activity rhythms
circadian rhythm
feeding
light/dark cycles
Maturation, 327
body temperature
5-hydroxytryptamine receptors
pirenperone
temperature preference
thermoregulation
Maze learning, 381
basal forebrain
hemicholinium
learning and memory
neuropathology
nucleus basalis magnocellularis
Meal patterns
cholecystokinin octapeptide, 111
circadian rhythms, 203
desynchrony, 203
food intake, 561
free-feeding, 111
human studies, 203, 561
intermeal interval, 111, 203, 561
macronutrients, 561
meal size, 111
mood, 561
sleep-wake periods, 203
time isolation, 203
Meal size, 111
cholecystokinin octapeptide
free-feeding
intermeal interval
meal pattern
Medial hypothalamus
aggression, 693
aggressive behavior, 555
body weight, 687
castration, 555, 693
defensiveness, 693
dehydroepiandrosterone, 687
eating, 687
hyperphagia, 687
intermale social aggression, 555
lesions, medial hypothalamus, 687, 693
obesity, 687
rats, males, 693
testosterone, 555, 693
Medial preoptic area temperature, 367
body temperature
copulation
hypothalamus
sexual behavior, male rats
thermoregulation
Memory, reference, 783
amnesia
hippocampus
ischemia
memory, working
Memory, working, 783
amnesia
hippocampus
ischemia
memory, reference
Metallothionein serum levels, 277
age differences
stress, acute
stress, chronic
Methamphetamine, 699

chronic administration
circadian rhythm, behavioral
circadian rhythm, neuroendocrine
withdrawal
Method
chronic esophagostomy, 417
double fistula, 417
double sampling technique, 303
high performance liquid chromatography with electrochemical detection, 33
radioimmunoassay, 11, 33
taste-and-spit tests, 739
two bottle preference test, 571
within trial repeated measurement, 303
5-Methoxy-N,N-dimethyl-tryptamine, 95
analgesia
8-hydroxy-2-(di-n-propyl-amino)tetralin
noradrenaline depletion
Motilin, 753
appetite
central administration
food intake
Mice, males, 147
androgens, nonaromatizable
castration
estrogen receptors
reproduction
ultrasonic vocalizations
Minipigs, 541
hypertonic solutions
drinking
ICV administration
osmoreceptors
sodium receptors
vasopressin release
Monkeys, squirrel, 21
environment, novel/familiar comparisons
housing, group/individual comparisons
mother-infant separation
pituitary-adrenal responses
plasma cortisol levels
vocalizations
Mood, 561
food intake
human studies
intermeal interval
macronutrients
meal patterns
Morphine, 445
cockroaches, headless
drug comparisons
learning
leg-lifting behavior
naloxone
shock avoidance
Morphine analgesic tolerance, 161
chronic administration
cross-tolerance
hot plate test
intrathecal infusion
morphine sulfate
tail flick test
Morphine sulfate, 161
chronic administration
cross-tolerance
hot plate test
intrathecal infusion
morphine analgesic tolerance
tail flick test
Morphine withdrawal, 593
alpha-interferon
cyclosporine
operant behavior
thermoregulation
Morpholine, 657
cardiac conditioning
chemical calibration system
chemosensory perception
computer control
salmon
Mother-infant separation, 21
environment, novel/familiar comparisons
housing, group/individual comparisons
monkeys, squirrel
pituitary-adrenal responses
plasma cortisol levels
vocalizations
Motor learning, 153
alternation, forced
law of effect
licking control
rhythmic movements
Mounting, 625
castration
rats, males
sexual behavior
sexual differentiation
testicular hormones
Muricidal behavior, 535
α_2-adrenoceptor antagonists
α_2-adrenoceptors
noradrenaline
olfactory bulbectomy
turnover rate

Na sensors
artificial cerebrospinal fluid, 465
cows, 459, 465
drinking, 459, 465
hypertonicity, 459
osmoreceptors, 459
sodium appetite, 465
Naloxone
castration, 669
cockroaches, headless, 445
drug comparisons, 445
food intake, nocturnal, 669
gonadal hormones, 669
learning, 445
leg-lifting behavior, 445
morphine, 445
ovariectomy, 669
shock avoidance, 445
Naltrexone
endogenous opioid peptides, 547
fear-induced freezing, 501
learning, 501
lithium chloride, 547
opioid-induced analgesia, 501
pain, 501
stress, 501
taste preference, 547
toxicity, 547
Neophobia, 579
fear
learning
lesions, cerebellar vermis
species-specific effects
taste-aversion
Neurobehavioral effects, 247
appetite regulation
aspartame
eating
human studies, males
phenylalanine
Neuropathology, 381
basal forebrain
hemicholinium
learning and memory
maze learning
nucleus basalis magnocellularis
Neurotransmitter amino acids, 453
aggressive behavior
selective breeding
Nicotine
area postrema, 681
body weight, 441
chronic administration, 441
copper sulfate, 681
drug interactions, 681
emesis, 681
food intake, 441
inhibitory action, 681
rats, females, 441
water intake, 441
withdrawal effects, 441
Nociception, 599
aggressive confrontation, repeated
aggressive confrontation, single
analgesia
defense behavior
strain differences
tolerance
Nocturnal feeding, 507
eating
food deprivation
hepatic glucose production
pancreatic glucagon
satiety
Nonshivering thermogenesis, 361
body weight
brown adipose tissue
carcass composition
food intake
long-term effects
norepinephrine turnover
ovariectomy
short-term effects
Noradrenaline, 535
α_2-adrenoceptor antagonists
α_2-adrenoceptors
muricidal behavior
olfactory bulbectomy
turnover rate
Noradrenaline depletion, 95
analgesia
8-hydroxy-2-(di-n-propyl-amino)tetralin
5-methoxy-N,N-demethyl-tryptamine
Norepinephrine
adrenal hormonal indices, 117
behavioral arousal, 117
corticosterone, 117
endocrine responses, 11
epinephrine, 11, 117
fighting behavior, 11
glucocorticoid, 11
guinea pigs, 11
short-term responses, 11
social status, 11
stress, 11, 117
testosterone, 11

Norepinephrine turnover, 361
body weight
brown adipose tissue
carcass composition
food intake
long-term effects
nonshivering thermogenesis
ovariectomy
short-term effects
Nucleus basalis magnocellularis, 381
basal forebrain
hemicholinium
learning and memory
maze learning
neuropathology
Nutrition, 527
growth rate
liquid diets
obesity

Obesity
body weight, 399, 687
dehydroepiandrosterone, 687
eating, 687
food intake, 399
gastric balloon, 399
growth rate, 527
hyperphagia, 687
lesions, medial hypothalamus, 687
liquid diets, 527
medial hypothalamus, 687
nutrition, 427
Odor stimulus
aggression, 73
avoidance, 73
classical conditioning, 89
cortisol, 89
flank gland secretions, 73
guinea pigs, 89
hamsters, 73
histamine release, 89
stress, 89
Odor, urine, 341
castration
lesions, ventromedial nucleus
lordosis behavior
olfactory system
orchidectomy
rats, males
Offspring, males, 477
behavioral effects
oral administration
pregnancy
tyrosine
Olfactory behavior, 141
aromatase inhibitor
castration
hamsters, male
testosterone
Olfactory bulbectomy, 535
α_2-adrenoceptor antagonists
α_2-adrenoceptors
muricidal behavior
noradrenaline
turnover rate
Olfactory system, 341
castration
lesions, ventromedial nucleus
lordosis behavior
odor, urine
orchidectomy
rats, males

Open-field activity
collateral activities, 255
differential reinforcement of low rate of responding, 255
general activity, 255
hypersynchronous bursting, 297
lesions, bilateral, 297
lesions, central amygdaloid nucleus, 715
lesions, electrocoagulation, 715
lesions, frontal, 297
lesions, ibotenic acid, 715
lesions, unilateral, 297
passive avoidance, 715
photically evoked after-discharge, 297
sex differences, 255
spontaneous alternation, 297
Operant behavior, 593
alpha-interferon
cyclosporine
morphine withdrawal
thermoregulation
Opioid-induced analgesia, 501
fear-induced freezing
learning
naltrexone
pain
stress
Opioid system, 135
analgesia
aversive conditioning
recruitment time
Oral administration, 477
behavioral effects
offspring, males
pregnancy
tyrosine
Oral chemical irritation, 63
capsaicin
human studies
piperine
sequential presentation
trigeminal receptors
Orchidectomy, 341
castration
lesions, ventromedial nucleus
lordosis behavior
odor, urine
olfactory system
rats, males
Orexigenic effects, 347
feeding behavior
growth hormone releasing factor
insulinemia
regimen
route of administration
sheep
Ornithine decarboxylase, 733
adrenal medulla
blood pressure
epinephrine
heart
hypoglycemia
rats, hypertensive
salt sensitivity
strain differences
sympathetic nervous system
Osmoreceptors
cows, 459
drinking, 459, 541
hypertonicity, 459
hypertonic solutions, 541
ICV administration, 541
minipigs, 541
Na sensors, 459
sodium receptors, 541
vasopressin release, 541
Ovariectomy
adrenalectomy, 217, 495
aggression, 225
body weight, 361
brown adipose tissue, 361
carcass composition, 361
castration, 225, 669, 677
cholecystokinin octapeptide, 217
food intake, 361
food intake, nocturnal, 669
gonadal hormones, 669
hamsters, 225
hormonal influences, 677
long-term effects, 361
lordosis behavior, 217
marmosets, 495
naloxone, 669
nonshivering thermogenesis, 361
norepinephrine turnover, 361
proceptivity, 495
progesterone, 225
receptivity, 495
scent marking, 677
sexual attractiveness, 495
sex differences, 677
short-term effects, 361
shrews, 677

P300, 483
auditory elicitation
event-related
evoked potential
Pacing behavior, 67
lordosis
sexual behavior, female
Pain, 501
fear-induced freezing
learning
naltrexone
opioid-induced analgesia
stress
Pain-modulatory system, 395
electrical stimulation
sleep-induced changes
sleep-regulatory system
tooth pulp, cats
trigeminal neurons
Pancreatic glucagon, 507
eating
food deprivation
hepatic glucose production
nocturnal feeding
satiety
Paraventricular nucleus, 727
analgesia
cold-water swim
lesions, paraventricular nucleus
Passive avoidance, 715
lesions, central amygdaloid nucleus
lesions, electrocoagulation
lesions, ibotenic acid
open field
Patchy environment, 351
caloric regulation
eating
feeding costs and benefits

food choice
profitability
Peptide
ACTH 4–10, 83
angiotensin II, 465
bombesin, 191
cholecystokinin octapeptide, 111, 119, 217
glucagon, 587
growth hormone releasing factor, 347
saralasin, 53
Periaqueductal gray, 333
jumping
learning
rearing
squealing
stimulation-induced behaviors
switch-off responding
Phentolamine, 551
cats
REM sleep deprivation
REM sleep rebound
Phenylalanine, 247
appetite regulation
aspartame
eating
human studies, males
neurobehavioral effects
Photically evoked after-discharge, 297
hypersynchronous bursting
lesions, bilateral
lesions, frontal
lesions, unilateral
open-field activity
spontaneous alternation
Photoperiod, 521
fertility
hamsters
sexual behavior
ultrasonic vocalizations
Photoperiodism, 615
hamsters
spontaneous testicular recrudescence
Photoreceptor damage, 607
light adaptation
light exposure
retina
rod outer segment phagocytosis
time of exposure
Pica, 745
2-deoxy-D-glucose
drinking
inhibition
kaolin
malaise
Pigs, 775
chain chewing
frustration
plasma cortisol levels
schedule-induced behavior
stereotypy, oral
Pinealectomy, 231
courtship behavior
hibernation
seasonal temperature information
snakes, red-sided garter
Piperine, 63
capsaicin
human studies
oral chemical irritation
sequential presentation
trigeminal receptors
Pirenperone, 327
body temperature
5-hydroxytryptamine receptors
maturation
temperature preference
thermoregulation
Pituitary-adrenal responses, 21
environment, novel/familiar comparisons
housing, group/individual comparisons
monkeys, squirrel
mother-infant separation
plasma cortisol levels
vocalizations
Plasma corticosterone levels, 33
conditioned fear paradigm
5-hydroxyindoleacetic acid concentrations
5-hydroxytryptamine concentrations
hypothalamus
plasma prolactin levels
plasma renin activity
stress, acute
Plasma cortisol levels
chain chewing, 775
environment, novel/familiar comparisons, 21
frustration, 775
housing, group/individual comparisons, 21
monkeys, squirrel, 21
mother-infant separation, 21
pigs, 775
pituitary-adrenal responses, 21
schedule-induced behavior, 775
stereotypy, oral, 775
vocalizations, 21
Plasma free fatty acid levels, 413
acute exercise
body weight
food intake
swimming
Plasma prolactin levels, 33
conditioned fear paradigm
5-hydroxyindoleacetic acid concentrations
5-hydroxytryptamine concentrations
hypothalamus
plasma corticosterone levels
plasma renin activity
stress, acute
Plasma renin activity, 33
conditioned fear paradigm
5-hydroxyindoleacetic acid concentrations
5-hydroxytryptamine concentrations
hypothalamus
plasma corticosterone levels
plasma prolactin levels
stress, acute
Play fighting, 471
behavioral effects
early weaning
social isolation
Poly-A$^+$ mRNA, 767
cordycepin
defeminization
gonadotropin secretion
sexual behavior
Posterior hypothalamus, 77
d-amphetamine
handling
intracranial self-stimulation
lever pressing
locomotor activity
rate of acquisition
Preference-aversion behavior, 285
caloric intake
diet, corn oil
diet, lard
diet, vegetable oil
dietary preference
taste preference
Pregnancy
behavioral effects, 477
calcium deficiency, 291
dietary self-selection, 291
lactation, 291
offspring, males, 477
oral administration, 477
tyrosine, 477
Preparation and maintenance, 417
chronic esophagostomy
double fistula
gastric cannula
Pre-pregnancy environmental manipulation, 187
behavioral effects, offspring
environmental enrichment
environmental impoverishment
maternal environmental manipulation
Proceptivity, 495
adrenalectomy
marmosets
ovariectomy
receptivity
sexual attractiveness
Profitability, 351
caloric regulation
eating
feeding costs and benefits
food choice
patchy environment
Progesterone, 225
aggression
castration
hamsters
ovariectomy
Prostaglandin release, 763
fever
hyperthermia, stress-induced
Protein intake, 1
behavioral responses
dietary self-selection
eating
hamsters
Pseudopregnancy, 421
behavioral estrus
hamsters, females
inhibition, mating-induced
long-term effects
receptivity

Quantitative analysis, 235
analgesia
caloric factor
response temperature
tail flick test
Quinine, 571
drinking motivation
drinking
rats, diabetics
sucrose octa-acetate

taste aversion

Rabbits
hypoglossal neurons, 273
learning, 643
lesions, hippocampus, 643
lesions, kainic acid, 643
macular stimulation, 273
sensory associations, 643
vestibular system, 273
Radial maze, 409
behavioral differences
sex differences
Random ratio schedules, 269
gonadectomy
response acquisition
sex differences
Rate of acquisition, 77
d-amphetamine
handling
intracranial self-stimulation
lever pressing
locomotor activity
posterior hypothalamus
Rats, anophthalmic, 321
circadian rhythm
locomotor activity
sleep-wakefulness
Rats, diabetic, 571
drinking
drinking motivation
quinine
sucrose octa-acetate
taste aversion
Rats, female
taste aversion
Rats, female
administration/observation intervals, 665
body weight, 441
chronic administration, 441
estradiol, 665
food intake, 441
nicotine, 441
sexual behavior, 665
water intake, 441
withdrawal effects, 441
Rats, hypertensive, 733
adrenal medulla
blood pressure
epinephrine
heart
hypoglycemia
ornithine decarboxylase
salt sensitivity
strain differences
sympathetic nervous system
Rats, male
aggression, 429, 693
all-male/mixed-sex colony comparisons, 429
castration, 341, 625, 693
defensiveness, 693
endocrinology, 429
hyperadrenalism, 429
lesions, medial hypothalamus, 693
lesions, ventromedial nucleus, 341
lordosis behavior, 341
medial hypothalamus, 693
mounting, 625
odor, urine, 341
olfactory system, 341
orchidectomy, 341
reproductive physiology, 429
sexual behavior, 625
sexual differentiation, 625
social stress, 429
testicular hormones, 625
testosterone, 693
Rats, trained, 377
brown adipose tissue
exercise
heat production
rats, untrained
running
thermogenesis, non-shivering
Rats, untrained, 377
brown adipose tissue
exercise
heat production
rats, trained
running
thermogenesis, non-shivering
Reaction time, 653
attention
dorsal noradrenergic bundle
6-hydroxydopamine
lesions, dorsal noradrenergic bundle
lesions, 6-hydroxydopamine
Rearing, 333
jumping
learning
periaqueductal gray
squealing
stimulation-induced behaviors
switch-off responding
Recent improvements, 673
biofeedback
blood pressure
continuous monitoring
UNO blood pressure monitor/conditioner
Receptivity
adrenalectomy, 495
behavioral estrus, 421
hamsters, females, 421
inhibition, mating-induced, 421
long-term effects, 421
marmosets, 495
ovariectomy, 495
proceptivity, 495
pseudopregnancy, 421
sexual attractiveness, 495
Recruitment time, 135
analgesia
aversive conditioning
opioid system
Reinforced behavior, 263
collateral activities
sex differences
Regimen, 347
feeding behavior
growth hormone releasing factor
insulinemia
orexigenic effects
route of administration
sheep
Relation to molecular properties, 619
D-amino acids
L-amino acids
conditioned taste aversion
taste effectiveness
REM sleep deprivation, 551
cats
phentolamine
REM sleep rebound
REM sleep rebound, 551
cats
phentolamine
REM sleep deprivation
Renin-angiotensin system, 53
diabetes insipidus
drinking
sodium appetite
strain differences
Reproduction, 147
androgens, nonaromatizable
castration
estrogen receptors
mice, males
ultrasonic vocalizations
Reproductive physiology, 429
aggression
all-male/mixed-sex colony comparisons
endocrinology
hyperadrenalism
rats, males
social stress
Response acquisition, 269
gonadectomy
random ratio schedules
sex differences
Response temperature, 235
analgesia
caloric factor
quantitative analysis
tail flick test
Restricted feeding, 211
circadian rhythms
corticosterone levels
lesions, ventromedial hypothalamus
ventromedial hypothalamus
Retina, 607
light adaptation
light exposure
photoreceptor damage
rod outer segment phagocytosis
time of exposure
Rhythmic movements, 153
alternation, forced
law of effect
licking control
motor learning
Rod outer segment phagocytosis, 607
light adaptation
light exposure
photoreceptor damage
retina
time of exposure
Route of administration, 347
feeding behavior
growth hormone releasing factor
insulinemia
orexigenic effects
regimen
sheep
Running, 377
brown adipose tissue
exercise
heat production
rats, trained
rats, untrained
thermogenesis, non-shivering

Saccharin, 757

caffeine
conditioned taste avoidance
cyclamate
flavor profiling
taste potentiation
Saccharin preference, 241
body weight
ethanol
feminization
in utero
sex differences
testosterone propionate
water intake
Salmon, 657
cardiac conditioning
chemical calibration system
chemosensory perception
computer control
morpholine
Salt sensitivity, 733
adrenal medulla
blood pressure
epinephrine
heart
hypoglycemia
ornithine decarboxylase
rats, hypertensive
strain differences
sympathetic nervous system
Satiety
bombesin, 191
cholecystokinin, 191
domestic fowls, 191
eating, 507
feeding activity, 191
food deprivation, 507
gastrointestinal motility, 191
hepatic glucose production, 507
nocturnal feeding, 507
pancreatic glucagon, 507
Scent marking, 677
castration
hormonal influences
ovariectomy
sex differences
shrews
Schedule-induced behavior, 775
chain chewing
frustration
pigs
plasma cortisol levels
stereotypy, oral
Seasonal temperature information, 231
courtship behavior
hibernation
pinealectomy
snakes, red-sided garter
Selective breeding, 453
aggressive behavior
neurotransmitter amino acids
Sensory associations, 643
learning
lesions, hippocampus
lesions, kainic acid
rabbits
Sensory controls, 127
bandaging
catalepsy
grasping
haloperidol
labyrinthectomy
Sequential presentation, 63
capsaicin
human studies
oral chemical irritation
piperine
trigeminal receptors
Serum estrogen levels, 309
duration of male exposure
estradiol binding site
sexual development
voles, females
Sex differences
age effects, 779
behavior differences, 409, 779
body weight, 241, 779
castration, 677
collateral activities, 255, 263
differential reinforcement of low rate of responding, 255
ethanol, 241
feminization, 241
general activity, 255
gonadectomy, 269
hormonal influences, 677
in utero, 241
open-field, 255
ovariectomy, 677
radial maze, 409
random ratio schedules, 269
reinforced behavior, 263
response acquisition, 269
saccharin preference, 241
scent marking, 677
shrews, 677
testosterone propionate, 241
water intake, 241
Sexual attractiveness, 495
adrenalectomy
marmosets
ovariectomy
proceptivity
receptivity
Sexual behavior
administration/observation intervals, 665
castration, 625
cordycepin, 767
defeminization, 767
estradiol, 665
fertility, 521
gonadotropin secretion, 767
hamsters, 521
mounting, 625
photoperiod, 521
poly-A^+ mRNA, 767
rats, females, 665
rats, males, 625
sexual differentiation, 625
testicular hormones, 625
ultrasonic vocalizations, 521
Sexual behavior, female, 67
lordosis
pacing behavior
Sexual behavior, male rats, 367
body temperature
copulation
hypothalamus
medial preoptic area temperature, 367
thermoregulation
Sexual development, 309
duration of male exposure
estradiol binding site
serum estrogen levels
voles, females
Sexual differentiation, 625
castration
mounting
rats, males
sexual behavior
testicular hormones
Sheep, 347
feeding behavior
growth hormone releasing factor
insulinemia
orexigenic effects
regimen
route of administration
Shock avoidance, 445
cockroaches, headless
drug comparisons
learning
leg-lifting behavior
morphine
naloxone
Short-term effects, 361
body weight
brown adipose tissue
carcass composition
food intake
long-term effects
nonshivering thermogenesis
norepinephrine turnover
ovariectomy
Short-term responses, 11
endocrine responses
epinephrine
fighting behavior
glucocorticoid
guinea pigs
norepinephrine
social status
stress
testosterone
Shrews, 677
castration
hormonal influences
ovariectomy
scent marking
sex differences
Sleep-induced changes, 395
electrical stimulation
pain-modulatory system
sleep-regulatory system
tooth pulp, cats
trigeminal neurons
Sleep-regulatory system, 395
electrical stimulation
pain-modulatory system
sleep-induced changes
tooth pulp, cats
trigeminal neurons
Sleep-wake periods, 203
circadian rhythms
desynchrony
human studies
intermeal interval
meal patterns
time isolation
Sleep-wakefulness, 321
circadian rhythm
locomotor activity
rats, anophthalmic
Snakes, red-sided garter, 231
courtship behavior
hibernation

pinealectomy
seasonal temperature information
Social behavior, 45
aggression
ethanol
inbred mice
strain differences
Social isolation, 471
behavioral effects
early weaning
play fighting
Social status, 11
endocrine responses
epinephrine
fighting behavior
glucocorticoid
guinea pigs
norepinephrine
short-term responses
stress
testosterone
Social stress, 429
aggression
all-male/mixed-sex colony comparisons
endocrinology
hyperadrenalism
rats, males
reproductive physiology
Sodium appetite
artificial appetite, 465
artificial cerebrospinal fluid, 465
cows, 465
diabetes insipidus, 53
drinking, 53, 465
Na sensors, 465
renin-angiotensin system, 53
strain differences, 53
Sodium receptors, 541
drinking
hypertonic solutions
ICV administration
minipigs
osmoreceptors
vasopressin release
Species-specific effects, 579
fear
learning
lesions, cerebellar vermis
neophobia
taste-aversion
Sperm transport, 371
copulatory behavior
copulatory plug
ejaculatory immobility
intromissions
Spontaneous alternation, 297
hypersynchronous bursting
lesions, bilateral
lesions, frontal
lesions, unilateral
open-field activity
photically evoked after-discharge
Spontaneously hypertensive rats, 633
hypertension
maternal behavior
Spontaneous testicular recrudescence, 61:
hamsters
photoperiodism
Squealing, 333
jumping
learning
periaqueductal gray
rearing
stimulation-induced behaviors
switch-off responding
Step-through latency, 103
detention
exploratory behavior
grooming
illumination
two-box apparatus
Stereotypy, oral, 775
chain chewing
frustration
pigs
plasma cortisol levels
schedule-induced behavior
Stimulation-induced behaviors, 333
jumping
learning
periaqueductal gray
rearing
squealing
switch-off responding
Strain differences
adrenal medulla, 733
aggression, 45
aggressive confrontation, repeated, 599
aggressive confrontation, single, 599
analgesia, 599
blood pressure, 733
defense behavior, 599
diabetes insipidus, 53
drinking, 53
epinephrine, 733
ethanol, 45
heart, 733
hypoglycemia, 733
inbred mice, 45
nociception, 599
ornithine decarboxylase, 733
rats, hypertensive, 733
renin-angiotensin system, 53
salt sensitivity, 733
social behavior, 45
sodium appetite, 53
sympathetic nervous system, 733
tolerance, 599
Stress
adrenal hormonal indices, 117
behavioral arousal, 117
classical conditioning, 89
corticosterone, 117
cortisol, 89
endocrine responses, 11
epinephrine, 11, 117
fear-induced freezing, 501
fighting behavior, 11
glucocorticoid, 11
guinea pigs, 11, 89
histamine release, 89
learning, 501
naltrexone, 501
norepinephrine, 11, 117
odor stimulus, 89
opioid-induced analgesia, 501
pain, 501
short-term responses, 11
social status, 11
testosterone, 11
Stress, acute
age differences, 277
conditioned fear paradigm, 33
5-hydroxyindoleacetic acid concentrations, 33
5-hydroxytryptamine concentrations, 33
hypothalamus, 33
metallothionein serum levels, 277
plasma corticosterone levels, 33
plasma prolactin levels, 33
plasma renin activity, 33
stress, chronic, 277
Stress, chronic, 277
age differences
metallothionein serum levels
stress, acute
Sucrose concentration, 739
food intake
food preferences
human studies
taste-and-spit tests
Sucrose octa-acetate, 571
drinking motivation
drinking
quinine
rats, diabetics
taste aversion
Sweet preference, 639
age differences
human studies
longitudinal changes
Swimming, 413
acute exercise
body weight
food intake
plasma fatty acid levels
Switch-off responding, 333
jumping
learning
periaqueductal gray
rearing
squealing
stimulation-induced behaviors
Sympathetic nervous system, 733
adrenal medulla
blood pressure
epinephrine
heart
hypoglycemia
ornithine decarboxylase
rats, hypertensive
salt sensitivity
strain differences

Tail flick test
analgesia, 235
caloric factor, 235
chronic administration, 161
cross-tolerance, 161
hot plate test, 161
intrathecal infusion, 161
morphine analgesic tolerance, 161
morphine sulfate, 161
quantitative analysis, 235
response temperature, 235
Taste-and-spit tests, 739
food intake
food preferences
human studies
sucrose concentration
Taste aversion
drinking motivation, 571
drinking, 571

fear, 579
learning, 579
lesions, cerebellar vermis, 579
neophobia, 579
quinine, 571
rats, diabetics, 571
species-specific effects, 579
sucrose octa-acetate, 571
Taste effectiveness, 619
D-amino acids
L-amino acids
conditioned taste aversion
relation to molecular properties
Taste potentiation, 757
caffeine
conditioned taste avoidance
cyclamate
flavor profiling
saccharin
Taste preference
caloric intake, 285
diet, corn oil, 285
diet, lard, 285
diet, vegetable oil, 285
dietary preference, 285
endogenous opioid peptides, 547
lithium chloride, 547
naltrexone, 547
preference-aversion behavior, 285
toxicity, 547
Temperature preference, 327
body temperature
5-hydroxytryptamine receptors
maturation
pirenperone
thermoregulation
Testicular hormones, 625
castration
mounting
rats, males
sexual behavior
sexual differentiation
Testosterone
aggression, 693
aromatase inhibitor, 141
castration, 141, 693
defensiveness, 693
endocrine responses, 11
epinephrine, 11
fighting behavior, 11
glucocorticoid, 11
guinea pigs, 11
hamsters, male, 141
lesions, medial hypothalamus, 693
medial hypothalamus, 693
norepinephrine, 11
olfactory behavior, 141
rats, males, 693
short-term responses, 11
social status, 11
stress, 11
Testosterone propionate
aggressive behavior, 555
body weight, 241
castration, 555
ethanol, 241
feminization, 241
intermale social aggression, 555
in utero, 241
medial hypothalamus, 555
saccharin preference, 241
sex differences, 241
water intake, 241
Thermogenesis, non-shivering, 377
brown adipose tissue
exercise
heat production
rats, trained
rats, untrained
running
Thermoregulation
alpha-interferon, 593
body temperature, 327, 367
copulation, 367
cyclosporine, 593
5-hydroxytryptamine receptors, 327
hypothalamus, 367
maturation, 327
medial preoptic area temperatute, 367
morphine withdrawal, 593
operant behavior, 593
pirenperone, 327
sexual behavior, male rats, 367
temperature preference, 327
Time course of changes, 707
corticosteronemia
food intake
glycemia
insulinemia
lesions, electrolytic bilateral
lesions, ventromedial hypothalamus
liver glycogen
ventromedial hypothalamus
Time isolation, 203
circadian rhythms
desynchrony
human studies
intermeal interval
meal patterns
sleep-wake periods
Time of exposure, 607
light adaptation
light exposure
photoreceptor damage
retina
rod outer segment phagocytosis
Tolerance, 599
aggressive confrontation, repeated
aggressive confrontation, single
analgesia
defense behavior
nociception
strain differences
Tooth pulp, cats, 395
electrical stimulation
pain-modulatory system
sleep-induced changes
sleep-regulatory system
trigeminal neruons
Toxicity, 547
endogenous opioid peptides
lithium chloride
naltrexone
taste preference
Trigeminal neurons, 395
electrical stimulation
pain-modulatory system
sleep-induced changes
sleep-regulatory system
tooth pulp, cats
Trigeminal receptors, 63
capsaicin
human studies
oral chemical irritation
piperone
sequential presentation
Turnover rate, 535
α_2-adrenoceptor antagonists
α_2-adrenoceptors
muricidal behavior
noradrenaline
olfactory bulbectomy
Two-box apparatus, 103
detention
exploratory behavior
grooming
illumination
step-through latency
Type 2 theta, 513
behavioral correlates
hippocampus
Tyrosine, 477
behavioral effects
offspring, males
oral administration
pregnancy

Ultrasonic vocalizations
androgens nonaromatizable, 147
castration, 147
estrogen receptors, 147
fertility, 521
hamsters, 521
mice, males, 147
photoperiod, 521
reproduction, 147
sexual behavior, 521
Unconditioned stimulus, 531
anti-lymphocyte serum
conditioned taste aversion
drug interactions
lithium chloride
UNO blood pressure monitor/conditioner, 673
biofeedback
blood pressure
continuous monitoring
recent improvements

Vagotomy, 587
chickens
food intake
glucagon
liver metabolism
Vasopressin-deficiency, 489
acquisition
conditioned taste aversion
diabetes insipidus
extinction
Vasopressin release, 541
drinking
hypertonic solutions
ICV administration
minipigs
osmoreceptors
sodium receptors
Ventromedial hypothalamus
circadian rhythms, 211
corticosterone, 211
corticosteronemia, 707
food intake, 707
glycemia, 707
insulinemia, 707
lesions, electrolytic bilateral, 707

lesions, ventromedial hypothalamus, 211, 707
liver glycogen, 707
restricted feeding, 211
time course of changes, 707
Vestibular system, 273
hypoglossal neurons
macular stimulation
rabbits
Vitamin D deficiency, 435
behavioral correlates
learning
Vocalizations, 21
environment, novel/familiar comparisons
housing, group/individual comparisons
monkeys, squirrel
mother-infant separation
pituitary-adrenal responses
plasma cortisol levels
Voles, females, 309
duration of male exposure
estradiol binding site
serum estrogen levels
sexual development

Water intake
body weight, 241, 441
chronic administration, 441
ethanol, 241
feminization, 241
food intake, 441
in utero, 241
nicotine, 441
rats, females, 441
saccharin preference, 241
sex differences, 241
testosterone propionate, 241
withdrawal effects, 441
Withdrawal effects
body weight, 441
chronic administration, 441, 699
circadian rhythm, behavioral, 699
circadian rhythm, neuroendocrine, 699
food intake, 441
methamphetamine, 699
nicotine, 441
rats, females, 441
water intake, 441
Within-trial repeated measurement, 303
double sampling
gastric emptying

AUTHOR INDEX

Adler, N. T., 371
Advokat, C., 161
Albert, D. J., 555, 693
Altemus, K. L., 435
Ambrogi Lorenzini, C., 103
Anderson, G. H., 247
Anderson, R. H., 297
Anderson, V. N., 169
Andrew, R. J., 27
Archer, T., 95
Arendt, J., 699
Arevalo, R., 477
Armario, A., 277
Aron, Cl., 341
Arweström, E., 95
Attas, A. I., 371

Babcock, A. M., 217
Baldwin, B. A., 541
Baranowski, J. R., 783
Bartles, R. R., 745
Bartness, T. J., 721
Bas, J., 277
Baumann, J., 699
Bean, N. J., 757
Beatey, S., 745
Beauchamp, G. K., 639
Beggs, A. L., 643
Beleslin, D. B., 681
Bellisle, F., 739
Berry, M. S., 45
Bethea, C. L., 33
Birge, S. J., 435
Blair-West, J. R., 465
Bloch, G. J., 217
Blumberg, M. S., 367
Bodnar, R. J., 727
Born, J., 83
Borom, A. H., 733
Brand, J. G., 285
Branley, E., 673
Brenner, E., 653
Bronson, F. H., 677
Brown, D. F., 315
Bucherelli, C., 103
Bueno, L., 347
Bureš, J., 153
Burton, P., 161

Carter, C. S., 309
Castro, R., 477
Chabli, A., 341
Chami, F., 625
Chateau, D., 341
Cheal, M. L., 281
Cherry, J. A., 521
Cierpial, M. A., 633, 733
Clark, A. S., 665
Clifton, P. G., 27
Cohen-Parsons, M., 309
Collier, G. H., 351
Collins, S. M., 303
Conover, K. L., 303
Corbier, P., 625
Creighton, D., 117
Crews, D., 231
Curtis, S. E., 775

Dantzer, R., 593, 775
Dark, K., 89
Davis, H. P., 783
Davis, M., 403
de Castro, J. M., 561
Degen, P., 699
de la Cruz, F., 127
Delaney, C. E., 541
Dell, P. A., 187
Denton, D. A., 459, 465
Desor, J. A., 639
DiBattista, D., 1
Dingman, A., 277
Dixson, A. F., 495
Dobrea, G. M., 327
Dodson, J. J., 657
Dolnikoff, M. S., 707
Doré, F. Y., 657
Dougherty, J., 381
Dyson, E. M., 555, 693

Edwards, D. A., 625
Eisenstadt, M. L., 381
Elder, S. T., 673
Elfont, R. M., 53
Ellison, G. D., 441
Ellman, G., 89
Everill, B., 45

Fanselow, M. S., 501, 579
Farhoody, N., 507
Feer, H., 699
Fehm, H. L., 83
Fehm-Wolfsdorf, G., 83
Finger, S., 435
Fischer, R. B., 73
Fisher, L. J., 607
Fleming, D. E., 297
Floody, O. R., 315
Forbes, J. M., 587
Forsling, M. L., 541
Fraile, I. G., 225
Frischknecht, H. R., 599
Fullenkamp, A. M., 73
Funakoshi, M., 235

Gage, D., 399
Galvez, C., 441
Gamble, E. H., 673
Gannon, M., 669
Garcia, J., 489
Garrett, D., 673
Garthwaite, T. L., 753
Gartside, I. B., 571
Garvey, J. S., 277
Geary, N., 507
Geliebter, A., 399
Gellatly, D. R., 459, 465
Gersony, A., 507
Giachetti, A., 103
Gonyou, H. W., 775
Goodlett, C. R., 721
Goodrich, C., 327
Gorski, R. A., 217
Gorzalka, B. B., 67, 693
Gosnell, B. A., 687
Green, J., 203
Greenwood, M. R. C., 111
Guyton, C. L., 421
Haeusler, A., 699
Hashim, S. A., 399
Hawkins, C., 745
Heinsbroek, R. P. W., 269
Helmstetter, F. J., 501
Hernandez-Mesa, N., 153
Heynen, A., 513
Hidalgo, J., 277
Hilakivi, I., 551
Hiroshige, T., 211
Hitchcock, J. M., 403
Holcomb, C., 241
Holder, M. D., 489
Hong, K. W., 535
Honma, K.-I., 211
Honma, S., 211
Howes, G. A., 587
Huck, U. W., 421
Hurlbut, B. J., 381, 483
Husband, A. J., 531
Hutchison, J. B., 141

Ibuka, N., 321
Iwasaki, K., 619

Jansons, R. A., 183
Janus, K., 471
Joffe, J. M., 779
Johnson, D. F., 21, 351
Jonsson, G., 95

Kare, M. R., 285
Karli, P., 333
Kasahara, T., 619
Kawakita, K., 235
Kelley, K. W., 593, 775
King, M. G., 531
Kinghorn, E. E., 297
Kitayama, S., 395
Kluger, M. J., 763
Kraeuchi, K., 699
Krohmer, R. W., 231
Krstić, S. K., 681
Külling, P., 599
Kusnecov, A. W., 531

Larue-Achagiotis, C., 413
Lawless, H. T., 63
Laycock, J. F., 571
Leaton, R. N., 579
Lee, W. S., 535
Leiter, L. A., 247
Leppävuori, A., 551
Levin, E. D., 441
Levine, A. S., 669
Levine, S., 21
Lieblich, I., 547
Lisk, R. D., 421
Lorens, S. A., 33
Louis-Sylvestre, J., 413
Lubar, J. F., 381, 483
Lucas, F., 739

McCarty, R., 117, 633, 733
McCurry, C., 89
McElroy, J. F., 361
McEwen, B. S., 225
McGivern, R. F., 241
McKinley, M. J., 459, 465
McKinney, J., 745

Mamedov, Z., 153
Mameli, O., 273
Martín García, A. I., 715
Marzullo, L. R., 111
Mason, J. R., 757
Mason, R. T., 231
Matzel, L. D., 135
Mendelson, S. D., 67
Mennella, J. A., 367
Micevych, P. E, 217
Michael, R. P., 77
Milković, K., 779
Millelire, L., 291
Miller, R. R., 135
Minor, B. G., 95
Mirmiran, M., 653
Miselis, R. R., 459
Moltz, H., 367
Montoya, C. P., 513
Mook, D. G., 417
Morgan, M. M., 441
Morgane, P. J., 721
Morimasa, T., 699
Morin, P.-P., 657
Mosier, H. D., Jr., 183
Muñoz-Blanco, J., 453
Murphy, C. A., 733

Nagasaka, T., 211, 377
Naim, M., 285
Natelson, B. H., 117
Nelson, J. F., 465
Nelson, R. J., 231, 615
Nicolov, N. A., 675
Nyby, J. G., 147

O'Brien, D. P., 127
Ohshima, T., 395
Oller do Nascimento, C. M. P., 707
O'Reilly, B., 763
Ottenweller, J. E., 117

Palarea, M. D., 477
Parente, E. J., 421
Paris, J. M., 33
Pasi, A., 599
Patterson, M. M., 643
Peeke, H. V. S., 89
Pellis, S. M., 127
Pellis, V. C., 127
Penzlin, H., 445
Persson, M.-L., 95
Peruzović, M., 779
Pfaff, D. W., 225
Pitman, D., 117
Poland, R. E., 241
Pollak, C. P., 203
Porras Castillo, A., 453
Port, R. L., 643
Post, C., 95
Prescod, L., 111
Pulsinelli, W. A., 783

Ramirez, I., 527
Restrepo, C., 277
Rhea, K., 745
Rhim, B. Y., 535
Richardson-Morton, K. D., 33
Riolobos, A. S., 715
Rissman, E. F., 677
Riviere, P., 347
Rodriguez, M., 477
Roffi, J., 625
Rose, F. D., 187
Rosenfeld, D. J., 753
Roy, E. J., 665
Rupich, R., 429
Ryan-Harshman, M., 247

Sachser, N., 11
Sainsbury, R. S., 513
Salfi, M., 89
Sandner, G., 333
Satinoff, E., 593
Sato, M., 619
Satoh, T., 395
Satterfield, S. M., 483
Sovoie, L., 629
Savory, C. J., 191
Schmitt, P., 333
Shasby, D. E., 633
Shibata, H., 377
Shope, T. R., 763
Siegfried, B., 599
Simon, N. G., 147
Simpson, J. B., 459
Smith, G. K., 169
Smith, G. P., 203
Sokol, H. S., 53
Steel, E., 141
Stevens, D. A., 63
Sudakov, K. V., 675
Sullivan, A. C., 111
Sundström, E., 95
Supple, W. F., Jr., 579
Switzer, R., 381

Tapp, W. N., 117
Taylor, G. T., 429
Teitelbaum, P., 127
Tennant, L. E., 677
Theunisse, B. C., 653
Thornton, S. N., 541
Timo-Iaria, C., 707
Tolu, E., 273
Toner, J. P., 371
Triscari, J., 111
Truesdell, L., 727
Tyler, C. B., 161

Ulibarri, C., 767
Urban, J. H., 33

Vachon, C., 629
Vance, R. A., 73
van De Kar, L. D., 33
van de Poll, N. E., 255, 263, 269, 409
Vander, A. J., 763
Vander Gugten, J., 653
van Haaren, F., 255, 263, 269, 409
van Hest, A., 255, 263
Verrette, J.-L., 657
Voigt, K. H., 83
Volpe, B. T., 783

Wade, G. N., 361
Wager-Srdar, S. A., 669
Wagner, S., 417
Walsh, M. L., 555, 693
Waser, P. G., 599
Watson, P. J., 745
Weingarten, H. P., 303
Weisinger, R. S., 459, 465
Weiss, A., 445
Weiss, J., 429
West, C. H. K., 77
West, D. B., 111
Westreich, S., 399
White, M. P., 607
Wiener, S. G., 21
Wirz-Justice, A., 699
Wolf, C., 435
Woodside, B., 291
Wouters, M., 409

Yahr, P., 767
Yamada, S., 395
Yamamoto, T., 649
Yirmiya, R., 489, 547
Yokota, T., 395

Zaia, T. B. V., 707
Zantvoord, F., 269
Zucker, I., 615